

Name: \_\_\_\_\_

**at1110paper\_\_practice\_\_test (v39)**

1. Expand the following expression into standard form.

$$(2x + 3)(4x - 9)$$

$$8x^2 - 18x + 12x - 27$$

$$8x^2 - 6x - 27$$

2. Solve the equation.

$$(7x - 6)(4x + 3) = 0$$

$$x = \frac{6}{7} \quad x = \frac{-3}{4}$$

3. Expand the following expression into standard form.

$$(3x + 2)(3x - 2)$$

$$9x^2 - 6x + 6x - 4$$

$$9x^2 - 4$$

4. Expand the following expression into standard form.

$$(5x - 4)^2$$

$$25x^2 - 20x - 20x + 16$$

$$25x^2 - 40x + 16$$

5. Factor the expression.

$$x^2 - x - 72$$

$$(x - 9)(x + 8)$$

6. Factor the expression.

$$49x^2 - 9$$

$$(7x - 3)(7x + 3)$$

7. Solve the equation with factoring by grouping.

$$24x^2 + 20x - 18x - 15 = 0$$

$$(4x - 3)(6x + 5) = 0$$

$$x = \frac{3}{4} \quad x = \frac{-5}{6}$$

8. Solve the equation.

$$9x^2 + 20x + 1 = 2x^2 + 3x - 5$$

$$7x^2 + 17x + 6 = 0$$

$$(7x + 3)(x + 2) = 0$$

$$x = \frac{-3}{7} \quad x = -2$$